

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Appellants	:	Sherif Yacoub et al.
Application No.	:	10/696,839
Filed	:	October 30, 2003
For	:	SYSTEM AND METHOD FOR INTERACTIVE VOICE RESPONSE ENHANCED OUT-CALLING
Examiner	:	MD S. Elahee
Art Unit	:	2614
Docket No.	:	200309325-1
Date	:	June 7, 2011

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APPEAL BRIEF

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Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This appeal is from the decision of the Examiner, in an Office Action mailed January 7, 2011, finally rejecting claims 1-25.

REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

### RELATED APPEALS AND INTERFERENCES

Appellants' representative has not identified, and does not know of, any other appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

### STATUS OF CLAIMS

Claims 1-25 are pending in the application. Claims 1-25 were finally rejected in the Office Action dated January 7, 2011. Appellants appeal the final rejection of claims 1-25 which are copied in the attached CLAIMS APPENDIX.

### STATUS OF AMENDMENTS

No Amendment After Final is enclosed with this brief. The last Amendment was filed November 9, 2010.

### SUMMARY OF CLAIMED SUBJECT MATTER

#### Independent Claim 1

Claim 1 is directed to a method for managing telephone calls. The method comprises: calling a contact (Current Application page 6, lines 4-5; page 10, line 18; page 11, lines 4-6); presenting the contact with a predetermined out-calling dialog (Current Application page 9, lines 8-24; page 10, line 19); translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms (Current Application page 10, line 19-21); connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (Current Application page 10, lines 21-23; page 12, lines 3-4); and providing the operator with the textual words (Current Application page 10, lines 23-24; page 12, lines 16-19).

#### Dependent Claims 2-15

Claim 2 is directed to the method of claim 1 wherein calling includes selecting the contact from a set of contacts within a contact database (Current Application page 5, lines 18-19; page 11, lines 2-4). Claim 3 is directed to the method of claim 1 further comprising: classifying the contact as either a person or not a person (Current Application page 6, lines 9-10; page 11, lines 6-7); and terminating the call, if the contact is not a person (Current

Application page 11, lines 8-9). Claim 4 is directed to the method of claim 1 wherein presenting includes: selecting the dialog from a set of dialogs stored in a dialog database based upon a set of attributes associated with the contact (Current Application page , lines ; page , lines ). Claim 5 is directed to the method of claim 1: further comprising, storing the contact's vocal responses, textual words, and contact attributes in a contact database (Current Application page 11, lines 15-17); and wherein providing includes, providing the operator with access to the contact database (Current Application page 12, lines 11-15). Claim 6 is directed to the method of claim 1 wherein connecting includes: continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available (Current Application page 9, lines 19-24). Claim 7 is directed to the method of claim 1: further comprising, determining whether the contact is interested in the out-calling dialog (Current Application page 11, lines 23-25); and wherein connecting includes, connecting the contact to the operator, if the contact is interested (Current Application page 12, lines 3-5). Claim 8 is directed to the method of claim 7, wherein determining includes: applying a set of heuristics to the textual words (Current Application page 7, lines 10-13). Claim 9 is directed to the method of claim 7, wherein determining includes: matching the textual words with predetermined keywords associated with interest (Current Application page 8, lines 5-17). Claim 10 is directed to the method of claim 7, wherein determining includes: matching the textual words with predetermined keywords associated with disinterest (Current Application page 8, lines 5-17). Claim 11 is directed to the method of claim 7, wherein determining includes: applying a set of heuristics to the textual words (Current Application page 7, lines 10-13); and concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest (Current Application page 8, lines 8-11). Claim 12 is directed to the method of claim 7 wherein determining includes applying a set of heuristics to the textual words; associating a score with each heuristic (Current Application page 8, lines 8-10); totaling the scores; and concluding that the contact is interested if the total score is above a predetermined threshold (Current Application page 8, lines 15-17). Claim 13 is directed to the method of claim 7 further comprising terminating the call with the contact, if the contact is not interested (Current Application page 9, lines 5-7). Claim 14 is directed to the method of claim 7 further comprising performing the translating and determining elements in parallel (Current Application page 7, lines 7-9). Claim 15 is directed to the method of claim 7, further comprising performing the determining element after the predetermined portion of the out-

calling dialog with the contact is completed (Current Application page 10, lines 4-8).

#### Independent Claim 16

Claim 16 is directed to a method for managing telephone calls, comprising: calling a contact (Current Application page 6, lines 4-5; page 10, line 18; page 11, lines 4-6); presenting the contact with a predetermined out-calling dialog Current Application page 9, lines 8-24; page 10, line 19); translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms (Current Application page 10, line 19-21); connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (Current Application page 10, lines 21-23; page 12, lines 3-4); providing the operator with the textual words (Current Application page 10, lines 23-24; page 12, lines 16-19); storing the contact's vocal responses, textual words, and contact attributes in a contact database (Current Application page 11, lines 15-17); wherein providing includes, providing the operator with access to the contact database; determining whether the contact is interested in the out-calling dialog (Current Application page 11, lines 23-25); wherein connecting includes, connecting the contact to the operator, if the contact is interested (Current Application page 12, lines 3-5); and terminating the call with the contact, if the contact is not interested (Current Application page 9, lines 5-7).

#### Independent Claim 17

Claim 17 is directed to a medium having instructions encoded thereon for enabling a processor to perform the operations of: calling a contact (Current Application page 6, lines 4-5; page 10, line 18; page 11, lines 4-6); presenting the contact with a predetermined out-calling dialog (Current Application page 9, lines 8-24; page 10, line 19); translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms (Current Application page 10, line 19-21); connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (Current Application page 10, lines 21-23; page 12, lines 3-4); and providing the operator with the textual words (Current Application page 10, lines 23-24; page 12, lines 16-19).

#### Dependent Claims 18-20

Claim 18 is directed to the medium of claim 17: further comprising, storing

the contact's vocal responses, textual words, and contact attributes in a contact database (Current Application page 11, lines 15-17); and wherein providing includes, providing the operator with access to the contact database (Current Application page 12, lines 11-15). Claim 19 is directed to the medium of claim 17 wherein connecting includes: continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available (Current Application page 9, lines 19-24). Claim 20 is directed to the medium of claim 17: further comprising, determining whether the contact is interested in the out-calling dialog (Current Application page 11, lines 23-25); and wherein connecting includes, connecting the contact to the operator, if the contact is interested (Current Application page 12, lines 3-5).

#### Independent Claim 21

Claim 21 is directed to a system for managing telephone calls, comprising a: means for calling a contact (Current Application page 6, lines 4-5); means for presenting the contact with a predetermined out-calling dialog (Current Application page 6, lines 13-15); means for translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms (Current Application page 6, line 23-24); means for connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed (Current Application page 6, lines 21-23); and means for providing the operator with the textual words (Current Application page 9, lines 25 to page 10, line 4).

#### Dependent Claims 22-23

Claim 22 is directed to the system of claim 21, further comprising: means for storing the contact's vocal responses, textual words, and contact attributes in a contact database (Current Application page 7, lines 5-6). Claim 23 is directed to the system of claim 21, further comprising: means for determining whether the contact is interested in the out-calling dialog (Current Application page 9, lines 5-7; page 9, line 25- page 10, line 4).

#### Independent Claim 24

Claim 24 is directed to a system for managing telephone calls between an operator and a contact, comprising: a contact database for storing information on the contact (Current Application page 5, lines 18-19); a dialog database containing a predetermined out-

calling dialog (Current Application page 6, lines 16-17); a call manager for calling the contact and presenting the contact with the dialog (Current Application page 6, lines 4-8); and an interactive voice response module for translating the contact's vocal responses to the dialog into textual words and storing the words in the contact database which are accessible to the operator (Current Application page 6, lines 23-24).

Dependent Claim 25

Claim 25 is directed to the system of claim 24, wherein the contact database includes: a set of attributes associated with the contact (Current Application page 5, lines 20-21).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

1. Claims 17-20 stand rejected under 35 U.S.C. §112, second paragraph, for failing to particularly point and distinctly claim the subject matter Applicants regard as the invention.
2. Claims 1, 4, 6-10, 13-17, 19-21, and 23-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 6,771,746 ("Shambaugh") in view of U.S. Patent 7,382,868 ("Moore").
3. Claims 2 and 3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 6,990,179 ("Morrow").
4. Claims 5, 18, and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 7,366,285 ("Parolkar").
5. Claim 11 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 6,850,766 ("Lau").
6. Claim 12 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 5,774,525 ("Kanevsky").

### ARGUMENT

The Examiner has twice rejected claims 1-25 of the current application based on the above cited references despite Appellant's detailed arguments with regard to the dissimilarity of the teachings of these references from the currently claimed invention. Note also that the current application has been in prosecution now for 7 years and 7 months with this being the second Appeal Brief filed in response the Examiner's rejections. The primary object of this Appeal Brief is to demonstrate that claims 17-20 satisfy the requirements under 35 U.S.C. §112, second paragraph and that claims 1-25 are patentable over the prior art cited by the Examiner. Therefore, Appellant believes that an appeal at this time is the most expeditious vehicle for advancing prosecution and request that this Appeal Brief be allowed to reach the Board of Patent Appeals so this case can be properly examined.

#### ISSUE 1

1. Whether claims 17-20 fail to particularly point and distinctly claim the subject matter Applicants regard as the invention under 35 U.S.C. §112, second paragraph.

In rejecting claims 17-20, the Examiner states on page 3 of the final Office Action that

“[t]he claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claim 17, the limitation ‘A medium having instructions . . . to perform the operations’ was not disclosed in the original specification.”

Appellant disagrees. Beginning on page 5, line 17 – page 10, line 15 of the detailed description of the current application is a description of a system 100 shown in Figure 1 of the current application. The system 100 is a computer system that inherently includes memory or a medium for storing the operations of claim 17 as encoded instructions and a processor to execute the operations of claim 17, and the system 100 is described as performing the operations of claim 17.

Therefore claim 17 satisfies the requirements of 35 U.S.C. §112, second paragraph.

#### ISSUE 2

2. Whether claims 1, 4, 6-10, 13-17, 19-21, and 23-25 under 35 U.S.C. §103(a) are



unpatentable over U.S. Patent 6,771,746 ("Shambaugh") in view of U.S. Patent 7,382,868 ("Moore").

Consider first independent claims 1, 17, and 21. In rejecting claims 1, 17, and 21, the Examiner contends that the primary reference Shambaugh in combination with Moore teach the elements of claims 1, 17, and 21. In particular, the Examiner argues that Shambaugh teaches all four elements of claims 1, 17, and 21 except

"Shambaugh does not specifically teach that this speech-to-text conversion process applies multiple interactive voice response (IVR) algorithms [Examiner is referring to the third claim element]. Moore teaches that the speech-to-text conversion process applies speech recognition algorithms (i.e., interactive voice response algorithms). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shambaugh to incorporate the feature of applying speech recognition algorithms by speech-to-text conversion process of Shambaugh's invention as taught by Moore." (bottom of page 5 -- top of page 6 of the final Office Action)

In other words, the Examiner argues that Shambaugh teaches all four elements of the claims 1, 17, and 21 except Shambaugh does not teach using a plurality of interactive voice response algorithms. The Examiner attempts to remedy Shambaugh's apparent deficiency by citing Moore as teaching a plurality of interactive voice response algorithms. However, Appellant contends that the Examiner has not demonstrated that all of the claimed elements of the current application can be found in the primary reference Shambaugh as argued by the Examiner. According to M.P.E.P. §2143 A, citing *KSR International Co. v. Teleflex Inc.*, in order

[t]o reject a claim based on this rationale, Office personnel must *articulate . . . a finding* that the prior art included *each element claimed*, although not necessarily in a single prior art reference, *with the only difference being the lack of actual combination of the elements in a single prior art reference.* (emphasis added)

M.P.E.P. §2143 A also states the "[t]he rationale to support a conclusion that the claim would have been obvious is that *all the claimed elements* were known in the prior art." In addition, "[i]f any of these findings cannot be made, then this rationale cannot be used to support a conclusion that the claim would have been obvious to one of ordinary skill in the art."

In light of *KSR*, Appellant contends that the Examiner has overlooked key differences between certain elements of the currently claimed invention and Shambaugh. By overlooking these key differences, the Examiner wrongly interprets Shambaugh to teach essentially the same methods as described in the claims of the current application. As



explained below, although Shambaugh and the claims of the current invention have certain commonalities, the key differences identified below are significant and make the claims of the current application patentable over the prior art cited by the Examiner.

Consider the Examiner's primary reference - Shambaugh. Shambaugh describes automated call handling and, in particular, Shambaugh describes

"a first mode which provides for handling calls automatically, and a second mode which provides for assisting an agent and *helping to optimize the agent's time*. These modes use speech recognition and speech synthesis technology. Particular embodiments may use text-to-speech synthesis and speech-to-text conversion." (emphasis added) (col. 3, lines 13-18)

The central concept of Shambaugh is to create a telephone experience where a call contact, the person with whom the telephone system is interacting, does not distinguish between the words uttered by the automated call handling system and an agent, which Shambaugh explains as follows:

"In one embodiment, a call center creates one or a group of 'virtual agents.' Different pronunciations from a professional voice can be recorded and saved to be used when piecing together different scripts to create sounds as if a human voice is speaking. Speech recognition and speech synthesis, or in one embodiment speech-to-text conversion and text-to-speech conversion, can be used to allow the live agent to sound like the 'virtual agent.' (col. 3, lines 19-27)

When an agent replies to a call contact using the agent's own voice the call contact may detect that the call contact has been previously talking to a machine, which some call contacts may dislike. *It may therefore be desirable to mask the voice of the agent so that the agent's voice matches the voice of the 'virtual agent.'* The virtual agent can mask the live agent's voice by having what the agent says translated to text by speech recognition such as, in one embodiment, speech-to-text conversion. The text produced can then be spoken to the caller by using the same speech synthesis technology, which in one embodiment can be text-to-speech technology, used when the original script was spoken. In this way agents can sound like any of the "virtual agents" created by the call center and a particular live agent is no longer tied to a call." (emphasis added) (col. 3, lines 28-42)

In other words, Shambaugh teaches a method for making a live agent sound like the voice used to talk to the call contact using speech-to-text and text-to-speech conversion. When the live agent responds to an unexpected, or off script, statement or question posed by the call contact, the agent's response is converted into text and then converted back into speech but in the voice used by the automated system, enabling the call contact to perceive an uninterrupted dialog with the automated system. Shambaugh provides an example dialog

between a call contact and the automated system in col. 4, lines 12-67, relevant portions of which are now cited:

*"The computer in one embodiment can respond to the call contact, indicating that the call contact's response was not understood, while it routes the call to a live agent to be handled correctly. For example: the computer can be programmed to respond, "Sorry I did not completely hear what you said, could you please repeat it again?" This response can allow time for the call to be routed to an agent. The call contact can then repeat the unknown response with the live agent listening to the call. When the call is routed to the agent in this embodiment, the script text that the computer was speaking when the unexpected response was given can also be sent to the agent. The text already spoken can be highlighted so that the agent will know what has been spoken to the call contact."* (emphasis added) (col. 4, lines 12-26)

Shambaugh then provides an explicit example of the technique describes in col. 4, lines 12-26 in col. 4, lines 41-67 as follows:

The table below recites an example of a dialog using one embodiment. An outbound call has been completed to a live person.

Text-to-speech: Hello, may I please speak with Mr. Doe?

Call Contact: Please wait while I get him.

Call Contact: Hello, this is Mr. Doe.

Text-to-speech: Hello Mr. Doe this is Jon with Alexander Bell. How are you doing today?

Call Contact: Fine.

Text-to-speech: Good. I am calling you today to talk to you about our new local service offer. More text/speech explaining local service is given . . . . To switch you to this new plan all I need is your permission.

*Call Contact: Don't you offer long distance service also, and how can I bundle local and long distance together? Unexpected Response--forward the call to an agent.*

Text-to-Speech: I'm sorry I did not completely hear your question, could you please say it again?

Call Contact: Don't you offer Long distance service also, and how can I bundle local and long distance together?

*Agent: Sorry, we don't offer long distance yet. Completes response and then sends the live person back to the computer.*

Text-to-Speech: Thank you. Alexander Bell appreciates your business." (emphasis added)

In other words, Shambaugh teaches a method for handling an *unexpected* response during a dialog between the call contact and the automated system by stopping the script, creating a delay that enables a live agent time to listen to, or review, the call contact's unexpected response. The live agent provides an appropriate answer to the call contact's unexpected response and then returns the call contact back to script. Shambaugh also describes in col. 7, lines 30-39, with reference to Figure 4 of Shambaugh, a method for maintaining the

synthesized voice heard by the call contact even though the agent is speaking:

“Control passes then to a receive live agent voice input process (430), in which the live agent speaks into an apparatus (such as, for example, a microphone) a reply appropriate to the response of the call contact to the prepared script. *Upon receiving live agent voice input, control passes to a make extemporaneous script process (440) in which the live agent voice input is converted to synthesized speech to preserve the call continuity and avoid the perception that a different person is speaking.*” (emphasis added)

In other words, Shambaugh does not teach or suggest turning the conversion over to the live agent to complete the conversation with the call contact. Shambaugh teaches only using the live agent to respond to off script statements or questions and does not teach turning the call over to the agent so the call can be completed.

By contrast, the first three elements of claims 1, 17, and 21 are described in Shambaugh. However, Shambaugh does not teach or suggest the fourth element of

“connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed”

In other words, claims 1, 17, and 21 connect the contact to a human operator when a *preset* portion of the out-calling dialog is completed. Page 9, lines 8-24 of the current application provide an example of a predetermined dialog:

“The following is one of many possible out-calling system 102 *dialogs* which may be presented to the contact 108. The dialog can start with a greeting and a probing question to see whether the called party is still online, such as, “*Hello. This is Roby from the Sphinx bank. How are you doing today sir?*” The contact 108 might say something here or hang up on the call. If the contact 108 hangs up, the call is terminated and another contact is called. If the contact 108 is still on the line, the out-calling system can say, “*The reason I am calling today is to follow up with you regarding the product you purchased from us. We would like to get your feedback on the product. Are you willing to stay on the line with us for 3 to 5 minutes to provide feedback?*” The contact 108 may express interest or not. If no interest is detected then a “*thank you*” message is played for the contact 108 wherein the contact may be asked if the out-calling system 102 can call later and at what time. *If the contact 108 expresses interest, then the system 102 keeps the contact 108 engaged in the conversation while the call is being handed over to the operator 118, by saying, “Thank you sir. We would like to explain the process to you while a qualified operator is being selected to conduct the survey with you. We usually conduct this feedback to*” (emphasis added)

This example dialog demonstrates that once a series of predetermined questions and possible responses from the contact have been completed, the conversation is turned over to a human

operator, or agent, who completes the phone conversation with the contact.

Shambaugh does not teach or suggest connecting a call contact with a live agent “after a predetermined portion of the out-calling dialog with the contact is completed” or an equivalent operation. Instead, as explained above in the cited portions of Shambaugh, Shambaugh teaches connecting the call contact to a live agent only when the call contact provides a response for which none of the scripts can provide an answer. (See e.g., col. 4, lines 12-26 and lines 44-65). In other words, the dialog presented in col. 4, lines 40-67 connects the call contact to the live agent only when the call contact provides an unexpected response in lines 56-57. Shambaugh does not teach or suggest that when a predetermined portion of the dialog is completed the agent is connected to the call contact.

In the response to the above arguments, the Examiner argues in the Response to Arguments section on page 3 of the final Office Action that Shambaugh does teach the element of “presenting the contact with a predetermined out-calling dialog” in col. 4, lines 12-23, 58, col. 7, lines 30-34, which are the exact same portions of Shambaugh cited above by Appellant as demonstration that Shambaugh does *not* teach or suggest this element. Appellant believes that the problem stems from the Examiner misunderstanding regarding the meaning of the word “predetermined.” The word “predetermined” means “to determine beforehand” and related words include “predestine” and foreordained.” (See for example, Merriam Webster 11<sup>th</sup> edition online dictionary at [www.merriam-webster.com/dictionary/predetermine](http://www.merriam-webster.com/dictionary/predetermine)). In other words, methods and systems of the current application have determined beforehand when a call with a contact will be turned over to a human operator or agent. As argued above, Shambaugh does not teach that a call will with a caller will be turned over to a human operator or agent when the call reaches a certain point. Instead, Shambaugh teaches that a call will only be turned over to human operator or agent when the conversation goes off script, but then call is returned back to the automated system.

Note that Moore also does not teach or suggest the element of “presenting the contact with a predetermined out-calling dialog.”

Thus, claims 1, 17, and 21 are patentable over Shambaugh in view of Moore, because Shambaugh and Moore fail to teach or suggest all of the claim elements of claims 1, 17, and 21.

Claim 16 of the current application also includes the four elements of claim 1, 17, and 21. For the same reasons argued above with respect to claims 1, 17, and 21, claim 16 is also patentable over Shambaugh in view of Moore.

Appellant is mystified by the Examiner's rejection of claim 24. In particular, the Examiner's argues that the same basis for rejecting claim 16 can also be used to reject claim 24. First, claim 16 is directed to a method and claim 24 is directed to a system. The Examiner has not specifically identified where the elements of claim 24 can be found in Shambaugh as require under MPEP §706.02(j):

“[a]fter indicating that the rejection is under 35 U.S.C. §103, the examiner should set forth in the Office action:

(A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page numbers(s) and line numbers where appropriate.”

Second, the Examiner argues that

“Claim . . . 24 [is] rejected for the reasons as discussed above with respect to claims 1, 5, 7, and 13.”

Claims 5, 7, and 13 are dependent claims of the method of claim 1 and do not include the same elements as claim 24. In particular, the system of claim 24 includes a contact, a dialog database, a call manager, and an interactive voice response module. None of these elements can be found in the elements of claims 1, 5, 7, and 13. Third, the arguments provided by the Examiner against the patentability of claims 5, 7, and 13 are with reference to methods and not to components of a system.

Thus, because the Examiner has not provided evidence and a proper analysis for rejecting claim 24, claim 24 is also patentable over the prior art cited by the Examiner.

Claims 4, 6-10, 13-16, 19-20, and 23-25 are patentable over Shambaugh in view of Moore because they depend from patentable base claims 1, 17, and 22.

### ISSUE 3

3. Whether claims 2 and 3 under 35 U.S.C. §103(a) are unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 6,990,179 (“Merrow”).

The rejection of claim 2 and 3 is predicated on claim 1 not being patentable over Shambaugh in view of Moore. However, as demonstrated above, claim 1 is patentable over Shambaugh in view of Moore. Therefore, claims 2 and 3 are patentable over Shambaugh in view of Moore and further in view of Merrow.

**ISSUE 4**

4. Whether claims 5, 18, and 22 under 35 U.S.C. §103(a) are unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 7,366,285 ("Parolkar").

The rejection of claims 5, 18, and 22 is predicated on claims 1, 17, and 21 not being patentable over Shambaugh in view of Moore. However, as demonstrated above, claims 1, 17, and 21 are patentable over Shambaugh in view of Moore. Therefore, claims 5, 18, and 22 patentable over Shambaugh in view of Moore and further in view of Merrow.

**ISSUE 5**

5. Whether claim 11 under 35 U.S.C. §103(a) is unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 6,850,766 ("Lau").

The rejection of claim 11 is predicated on claim 1 not being patentable over Shambaugh in view of Moore. However, as demonstrated above, claim 1 is patentable over Shambaugh in view of Moore. Therefore, claim 11 is patentable over Shambaugh in view of Moore and further in view of Lau.

**ISSUE 6**

6. Whether claim 12 under 35 U.S.C. §103(a) is unpatentable over Shambaugh in view of Moore and further in view of U.S. Patent 5,774,525 ("Kanevsky").

The rejection of claim 12 is predicated on claim 1 not being patentable over Shambaugh in view of Moore. However, as demonstrated above, claim 1 is patentable over Shambaugh in view of Moore. Therefore, claim 12 is patentable over Shambaugh in view of Moore and further in view of Kanevsky.

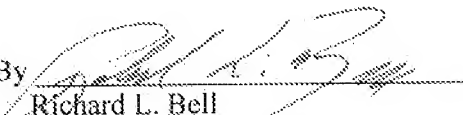
**CONCLUSION**

It is not enough for an obviousness rejection to conclude that because two or more references describe different methods that have a few elements in common with the claims of the current application the references can simply be combined to make the claims obvious. As discussed above, the claims of the current application are quite distinct and dissimilar from the methods of Shambaugh and Moore and these differences are explicitly reflected in the language of the current claims. In addition, the Examiner has provided very little in the way of analysis in support of combining references directed to fundamentally

different methods. As demonstrated above, the M.P.E.P. and current case law clearly place the burden of establishing obviousness on the Examiner. The Examiner cannot assert that a claim is obvious by simply referencing a few paragraphs and Figures of prior art references without also citing facts and providing an explanation as to how the references can actually be combined.

Appellants respectfully submit that all statutory requirements are met and that the present application is allowable over all the references of record. Therefore, Appellants' respectfully requests that the present application be passed to issue.

Respectfully submitted,  
Sherif Yacoub et al.  
*OLYMPIC PATENT WORKS PLLC*

By   
Richard L. Bell  
Registration No. 54,614



CLAIMS APPENDIX

1. A method for managing telephone, comprising:
  - calling a contact;
  - presenting the contact with a predetermined out-calling dialog;
  - translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms;
  - connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed; and
  - providing the operator with the textual words.
2. The method of claim 1 wherein calling includes:
  - selecting the contact from a set of contacts within a contact database.
3. The method of claim 1 further comprising:
  - classifying the contact as either a person or not a person; and
  - terminating the call, if the contact is not a person.
4. The method of claim 1 wherein presenting includes:
  - selecting the dialog from a set of dialogs stored in a dialog database based upon a set of attributes associated with the contact.
5. The method of claim 1:
  - further comprising,
    - storing the contact's vocal responses, textual words, and contact attributes in a contact database; and
  - wherein providing includes,
    - providing the operator with access to the contact database.
6. The method of claim 1 wherein connecting includes:
  - continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available.

7. The method of claim 1:

further comprising,

determining whether the contact is interested in the out-calling dialog;

and

wherein connecting includes,

connecting the contact to the operator, if the contact is interested.

8. The method of claim 7, wherein determining includes:

applying a set of heuristics to the textual words.

9. The method of claim 7, wherein determining includes:

matching the textual words with predetermined keywords associated with interest.

10. The method of claim 7, wherein determining includes:

matching the textual words with predetermined keywords associated with disinterest.

11. The method of claim 7, wherein determining includes:

applying a set of heuristics to the textual words; and

concluding that the contact is interested if a greater number of the heuristics within the set of heuristics indicate the contact's interest.

12. The method of claim 7, wherein determining includes:

applying a set of heuristics to the textual words;

associating a score with each heuristic;

totaling the scores; and

concluding that the contact is interest if the total score is above a predetermined threshold.

13. The method of claim 7, further comprising:

terminating the call with the contact, if the contact is not interested.

14. The method of claim 7, further comprising:

performing the translating and determining elements in parallel.

15. The method of claim 7, further comprising:

performing the determining element after the predetermined portion of the out-calling dialog with the contact is completed.

16. A method for managing telephone calls, comprising:

calling a contact;

presenting the contact with a predetermined out-calling dialog;

translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms;

connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed;

providing the operator with the textual words;

storing the contact's vocal responses, textual words, and contact attributes in a contact database;

wherein providing includes, providing the operator with access to the contact database;

determining whether the contact is interested in the out-calling dialog;

wherein connecting includes, connecting the contact to the operator, if the contact is interested; and

terminating the call with the contact, if the contact is not interested.

17. A medium having instructions encoded thereon for enabling a processor to perform the operations of:

calling a contact;

presenting the contact with a predetermined out-calling dialog;

translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms;

connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed; and

providing the operator with the textual words.

18. The medium of claim 17:

further comprising,  
storing the contact's vocal responses, textual words, and contact attributes in a contact database; and  
wherein providing includes,  
providing the operator with access to the contact database.

19. The medium of claim 17 wherein connecting includes:

continuing a next portion of the out-calling dialog with the contact while waiting for the human operator to become available.

20. The medium of claim 17:

further comprising,  
determining whether the contact is interested in the out-calling dialog;  
and  
wherein connecting includes,  
connecting the contact to the operator, if the contact is interested.

21. A system for managing telephone calls, comprising a:

means for calling a contact;  
means for presenting the contact with a predetermined out-calling dialog;  
means for translating the contact's vocal responses to the dialog into textual words using selected interactive voice response algorithms;  
means for connecting the contact to a human operator after a predetermined portion of the out-calling dialog with the contact is completed; and  
means for providing the operator with the textual words.

22. The system of claim 21, further comprising:

means for storing the contact's vocal responses, textual words, and contact attributes in a contact database.

23. The system of claim 21, further comprising:

means for determining whether the contact is interested in the out-calling dialog.

24. A system for managing telephone calls between an operator and a contact, comprising:

- a contact database for storing information on the contact;
- a dialog database containing a predetermined out-calling dialog;
- a call manager for calling the contact and presenting the contact with the dialog; and
- an interactive voice response module for translating the contact's vocal responses to the dialog into textual words and storing the words in the contact database which are accessible to the operator.

25. The system of claim 24, wherein the contact database includes:

- a set of attributes associated with the contact.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.